

Short Term Courses – NIELIT
Certificate Course in Finite Element Analysis using ANSYS

Objective of the Course:

This is an introductory course on Finite element Analysis (FEA) using ANSYS and is specially meant for Engineering Students and practising professionals. ANSYS is a popular and well recognised general purpose finite element modelling package for numerically solving a large range of problems including static, dynamic mechanical, structural analysis (linear and non-linear), heat transfer and fluid problems, as well as acoustic and electromagnetic problems. It is widely used in the mechanical, automobile, structural, chemical and aeronautical industries.

The main objective is to introduce to the Finite Element Analysis (FEA) concepts and make familiar with the tools and techniques of the ANSYS software package.

Learning Outcomes:

At the end of the course the participant will be able to use the ANSYS package to solve basic engineering analysis problems using FEA techniques.

The participants should have some basic concept of engineering mechanics and familiarity with desktop environment.

Expected Job Roles:

Design Engineer

Duration of the Course (in hours) 80 hrs

Appr. Fees (INR): Rs. 7000/- (Excluding Service Tax)

Minimum Eligibility Criteria and pre-requisites, if any Engineering Degree/ Diploma

Outline of Course

S. No	Topic	Minimum No. of Hours
1.	Introduction to FEA	06 hrs
2.	ANSYS and its interfaces	10 hrs
3.	ANSYS Basics and General FEA Analysis Procedures	14 hrs
4.	Structural Analysis	10 hrs
5.	Thermal Analysis	10 hrs
6.	Modal Analysis	10 hrs
7.	Tutorial / Project Work	20 hrs
Theory / Lecture Hours:		40 hrs
Practical / Tutorial / Project Hours:		40 hrs
Total Hours:		80 hrs

Books recommended for reference and reading: Class Notes will be provided

Group Code: CADD **Group Name:** Autocad / Industrial Automation

Course Code: CT02 **Course Name:** Certificate Course in Finite Element Analysis using ANSYS